

Abstract of the disclosure

The invention relates to a device and a method for the formation of gradient layers on substrates in a vacuum chamber by means of which the gradient layers having increased efficiency and reduced residual ripple of the surface can be obtained. The solution according to the invention is then designed such that at least one plasma source or by means of evaporation a particle current is directed upon the surface of the substrate to be coated within the vacuum chamber. A mask having discretely arranged perforations is disposed between a particle source and the substrate. The mask has a constant thickness and is allowed to be oscillatorily moved by means of a drive along at least one axis with respect to the substrate in a plane. The ratio of the free cross-sections of the perforations being discretely present within the mask, and of the intermediate web surfaces varies per unit of area over the total surface or on areas of this mask. However, the distance between the surface of the substrate and the mask can also be of different size, solely or alternatively, over the total surface or of surface areas.